

REMARKS

By this Amendment, claims 1, 2-5, 8-10, 14, 15, 17, 19, 21-25, 29-31, 42, 46, 48-52, 56, 58-61 and 63-65 are amended. Claim 66 is added. Accordingly, claims 1-66 are pending in this application.

Particularly, claim 8 is rewritten into independent form. Claims 1, 15, 22, 25, 29, 48, 49 and 52 are amended to recite a magnetic circuit having at least a pair of magnetic poles opposed to each other via a magnetic gap. Claims 2-5, 19, 21, 31, 56, 58-61 and 63-65 are amended to broaden their scope and or so they remain consistent in view of the amendments to claims 1, 15, 22, 25, 29, 48, 49 and 52. Claims 9, 10, 14, 17, 23, 24, 30-32, 42, 43, 46, 50, 51, 53 and 61 are amended for formal matters but are not narrowed nor amended for any reason related to patentability. Reconsideration of the application is respectfully requested.

Applicant appreciates the Office Action indication that claim 8 contains allowable subject matter. The Office Action requests identification of the figure that discloses the subject matter recited in claim 8. Applicant respectfully submits that the subject matter recited in claim 8 is disclosed in, for example, Figs. 1A-1C. As discussed during the March 19 interview, Fig. 1B discloses a "gap" 34 and a coil 25 formed on an anode 9, as described in the specification at, for example, page 12, lines 2-3 and 11-16. Claim 8 is now in condition for allowance. Favorable consideration and prompt allowance of claim 8 are respectfully solicited. ✓

Applicant thanks Examiner Psitos for the courtesy extended to Applicant's representative, Mr. Luo, during the March 19 personal interview. The substance of the March 19 personal interview is incorporated into the remarks below.

The Office Action makes final the Restriction Requirement and withdraws claims 12-55 and 57-65 from further consideration. Applicant reiterates the traversal to the Restriction Requirement. As discussed in the March 19 interview, Applicant respectfully ✓

requests withdrawal of the Restriction Requirement, especially in view of the amendments made to the claims. ✓
✓

Furthermore, Applicant respectfully submits that new claim 66, depending from claim 1, should be examined with claims 1-11. ? which species?

The Office Action rejects claim 56 under 35 U.S.C. §112, second paragraph. This rejection is respectfully traversed. drop m18

The Office Action asserts that it is unclear how claim 56, reciting a shading element, can be read upon the elected non-shading species. Applicant respectfully submits that this rejection is improper. [Applicant submits that 35 U.S.C. §112 does not require a claim to read upon an elected species.] 82'

Furthermore, Applicant respectfully submits that claim 56 depends from claim 1, which, using "comprising" as the transitional phrase, does not exclude additional limitations.

→ Also, the shading element recited in claim 56 does not contradict, or conflict with, any element recited in claim 1. Therefore, it is appropriate for claim 56 to recite the additional feature of a shading element. Accordingly, withdrawal of the rejection of claim 56 under 35 U.S.C. §112, second paragraph, is respectfully requested. 2

The Office Action rejects claims 1 and 11 under 35 U.S.C. §102(e) over U.S. Patent 6,272,097 to Nakao et al., or, in the alternative, under 35 U.S.C. §103(a) over Nakao in view of U.S. Patent 5,615,183 to Ishii and U.S. Patent 5,402,293 to Smith. This rejection is respectfully traversed.

The Office Action asserts that Nakao discloses all elements recited in claims 1 and 11. Especially, the Office Action asserts that the placement of a magnetic coil disclosed in Nakao teaches the feature of the thin film magnetic transducer being stacked on the semiconductor laser. Alternatively, the Office Action asserts that the placement of the coil arrangement discussed in Ishii and Smith is an obvious relocation of parts. However, Applicant

respectfully submits that Nakao, Ishii and Smith, individually or in combination, do not disclose or suggest a thin film magnetic transducer comprising a magnetic circuit having at least a pair of magnetic poles opposed to each other via a magnetic gap, as recited in claims 1 and 11.

As a preliminary matter, Nakao, Ishii and Smith are directed to Magneto-optic (MO) devices. In such MO devices, a coil is located around a laser beam. The coil generates a magnetic field that is applied vertically to a recording medium. Nakao, Ishii and Smith do not disclose or suggest a magnetic gap between two magnetic poles, because such a magnetic gap would not add to the functionality of the MO devices disclosed in Nakao, Ishii and Smith.

In contrast, in optically assisted magnetic recording (OAM) devices, a magnetic field is generated between a magnetic gap. The magnetic field is applied horizontally to the recording medium. Thus, because of this fundamental difference between MO devices and OAM devices, Nakao, Ishii and Smith do not even touch on the subject matter of magnetic gaps.

Particularly, Nakao discloses an optical head having a coil 15, 22 or 29. See Figs. 9, 11A, or 14, respectively, of Nakao. The coil is located around an optical head or a focused spot. See col. 7, lines 49-54 or col. 10, lines 51-55, respectively, of Nakao. Nakao does not disclose or suggest magnetic poles and a magnetic gap between the poles. Therefore, Nakao does not disclose or suggest a thin film magnetic transducer comprising a magnetic circuit having at least a pair of magnetic poles opposed to each other via a magnetic gap, as recited in claims 1 and 11.

For at least the above reasons, Nakao does not disclose each and every element recited in claims 1 and 11. Thus, Nakao alone does not disclose or suggest the subject matter recited in claims 1 and 11.

Ishii discloses a magnetic head 108 with a coil 2 formed by wire loops wound around a core member 4. See Fig. 3C and col. 3, lines 21-37 of Ishii. Ishii does not disclose or suggest magnetic poles and a magnetic gap between the poles. Therefore, Ishii does not disclose or suggest a thin film magnetic transducer comprising a magnetic circuit having at least a pair of magnetic poles opposed to each other via a magnetic gap, as recited in claims 1 and 11. Thus, Ishii does not supply the subject matter outlined above as lacking in Nakao.

Smith discloses a magnetic head 200 with continuous coil 214 wound around a center pole piece 212. See Fig. 2 and col. 4, lines 4-16 of Smith. Smith does not disclose or suggest magnetic poles and a magnetic gap between the poles. Thus, Smith does not disclose or suggest a thin film magnetic transducer comprising a magnetic circuit having at least a pair of magnetic poles opposed to each other via a magnetic gap. Thus, Smith does not supply the subject matter outlined above as lacking in Nakao and Ishii. *see fig. 4*

Furthermore, Applicant respectfully submits that one skilled in the art would not have been motivated to combine Nakao, Ishii and Smith, as asserted in the Office Action.

Nakao discloses a minute optical head which integrates a light source and photo detector elements on the same substrate by a simple manufacturing process. See Abstract and col. 1, lines 51-57 of Nakao. In contrast, Ishii discloses a magnetic head 108 which resides on the opposite side of a magneto-optical disk 100 from an optical system 103. See Fig. 9 of Ishii. Also, Smith discloses a magnetic center pole head 200 that is located on the opposite side of a recording disk 50 from the source of a laser beam 54. See Fig. 3 of Smith. Therefore, in both Ishii and Smith, the magnetic head and the laser beam source are located on the opposite sides of, and therefore is separated by, the recording disk. Thus, one skilled in the art would not have been motivated to combine Ishii and/or Smith with Nakao, because such a combination would defeat Nakao's purpose for providing a minute optical head that integrates a light source and a photo detector element on the same substrate.

The Official Notice states that the vertical cavity surface emitting semiconductor recited in claim 10 is considered to be of a well known type of semiconductor. However, ✓ Applicant respectfully submits that the Official Notice does not address the thin film magnetic transducer comprising a magnetic circuit having at least a pair of magnetic poles opposed to each other via a magnetic gap, as recited in claim 1. Therefore, the Official Notice does not supply the subject matter outlined above as lacking in Nakao, Ishii, Smith and Bischoff.

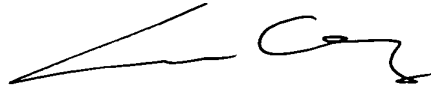
For at least the above reasons, Nakao, Ishii, Smith, Bischoff and the Official Notice, individually or in combination, do not teach, disclose or suggest the subject matter recited in claims 1 and 10. Withdrawal of the rejection of claim 10 under 35 U.S.C. §103(a) is respectfully requested.

Applicant further respectfully submits all of the other claims, claims 12-55 and 57-66 are allowable over the cited references for at least these reasons.

In view of the foregoing amendments and remarks, Applicant submits that this application is in condition for allowance. Favorable reconsideration and prompt allowance of all of claims 1-66 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number set forth below.

Respectfully submitted,



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Attachment:

Petition for Extension of Time
Amendment Transmittal

Date: May 12, 2003

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